

**Purpose** The STQ was created in order to obtain an accurate sketch of an individual's typical sleep schedule, allowing sleep technicians to tailor the timing of polysomnographic studies to the patient's specific needs and habits. The questionnaire is meant to function as an alternative to the more time-consuming sleep diary format. Consisting of 18 items, the STQ queries a variety of issues, including preferences for bed and waking times, frequency and length of night awakenings, and stability of sleep schedules.

**Population for Testing** The scale has been validated with a group of individuals aged 20–82 years.

**Administration** A self-report, paper-and-pencil measure, the scale requires between 5 and 10 min for completion.

**Reliability and Validity** In order to ensure that the STQ could produce results similar to those obtained through a more traditional sleep diary, developers Monk and colleagues [1] conducted a psychometric evaluation. Over the course of four studies, developers found a test-retest reliability ranging from .71 to .83, a correlation of .59 to .77 between the STQ and measure of bed timing taken by wrist actigraphy, and a correlation of .84 to .86 between the STQ and a 2-week sleep diary.

**Obtaining a Copy** A copy of the questionnaire can be found in the original article published by developers [1].

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**Scoring** Respondents indicate their earliest and latest typical bed and wake times on both week-ends and work nights by filling in blanks. As developers explain, "[t]his part of the questionnaire is less to derive actual data endpoints but more to focus the patient on thinking about their actual bedtimes and waketimes, to avoid them merely responding with a 'boilerplate' response" [1]. Following these responses, participants answer questions regarding their typical bedtimes. Finally, multiple-choice questions ask individuals to estimate, in 15-min increments, how stable their schedules tend to be. These responses combined can then be used to estimate suitable study or research times that will fit the individual's schedule and provide the most accurate results of polysomnography. When an overall score is needed, developers recommend weighting typical week-night to weekend schedules with a ratio of 5:2, which will provide an average time in bed.

SLEEP TIMING QUESTIONNAIRE (STQ)

Name \_\_\_\_\_  
 ID# \_\_\_\_\_  
 Date \_\_\_\_\_

SLEEP TIMING QUESTIONNAIRE (STQ)

This questionnaire asks about when you normally sleep. We are interested in getting as accurate a picture as we can of the times when you normally go to bed and get up. Please think carefully before giving your answers and be as accurate and as specific as you can be. Please answer in terms of a recent "normal average week," not one in which you traveled, vacationed or had family crises. Thanks.

Please think of GOOD NIGHT TIME as the time at which you are finally in bed and trying to fall asleep.

On the night before a work day or school day,  
 what is your earliest GOOD NIGHT TIME ? \_\_\_\_:\_\_\_\_ pm/am

On the night before a work day or school day,  
 what is your latest GOOD NIGHT TIME ? \_\_\_\_:\_\_\_\_ pm/am

On the night before a work day or school day,  
 what is your usual GOOD NIGHT TIME ? \_\_\_\_:\_\_\_\_ pm/am

How stable (i.e., similar each night) are your GOOD NIGHT TIMES before a work day or school day? (circle one)

|           |           |              |             |
|-----------|-----------|--------------|-------------|
| 0-15 min  | 16-30 min | 31-45 min    | 46-60 min   |
| 61-75 min | 76-90 min | 91-105 min   | 106-120 min |
| 2-3 hours | 3-4 hours | over 4 hours |             |

On a night before a day off (e.g. a weekend),  
 what is your earliest GOOD NIGHT TIME ? \_\_\_\_:\_\_\_\_ pm/am

On a night before a day off (e.g. a weekend),  
 what is your latest GOOD NIGHT TIME ? \_\_\_\_:\_\_\_\_ pm/am

On a night before a day off (e.g. a weekend),  
 what is your usual GOOD NIGHT TIME ? \_\_\_\_:\_\_\_\_ pm/am

How stable (i.e., similar each night) are your GOOD NIGHT TIMES on a night before a day off (e.g. a weekend)? (circle one)

|             |             |              |               |
|-------------|-------------|--------------|---------------|
| 0-15 mins.  | 16-30 mins. | 31-45 mins.  | 46-60mins.    |
| 61-75 mins. | 76-90 mins. | 91-105 mins  | 106-120 mins. |
| 2-3 hours   | 3-4 hours   | over 4 hours |               |

Please think of GOOD MORNING TIME as the time at which you finally get out of bed and start your day.

Before a work day or school day,  
 what is your earliest GOOD MORNING TIME ? \_\_\_\_:\_\_\_\_ am/pm

Before a work day or school day,  
 what is your latest GOOD MORNING TIME ? \_\_\_\_:\_\_\_\_ am/pm

Before a work day or school day,  
 what is your usual GOOD MORNING TIME ? \_\_\_\_:\_\_\_\_ am/pm

How stable (i.e., similar each night) are your GOOD MORNING TIMES before a work day or school day? (circle one)

|             |             |              |               |
|-------------|-------------|--------------|---------------|
| 0-15 mins.  | 16-30 mins. | 31-45 mins.  | 46-60 mins.   |
| 61-75 mins. | 76-90 mins. | 91-105 mins  | 106-120 mins. |
| 2-3 hours   | 3-4 hours   | over 4 hours |               |

Before a day off (e.g. a weekend),  
what is your earliest GOOD MORNING TIME ? \_\_\_\_:\_\_\_\_ am/pm

Before a day off (e.g. a weekend),  
what is your latest GOOD MORNING TIME ? \_\_\_\_:\_\_\_\_ am/pm

Before a day off (e.g. a weekend),  
what is your usual GOOD MORNING TIME ? \_\_\_\_:\_\_\_\_ am/pm

How stable (i.e., similar each night) are your GOOD MORNING TIMES on a night before a day off (e.g. a weekend)? (circle one)

|             |             |              |               |
|-------------|-------------|--------------|---------------|
| 0-15 mins.  | 16-30 mins. | 31-45 mins.  | 46-60 mins.   |
| 61-75 mins. | 76-90 mins. | 91-105 mins  | 106-120 mins. |
| 2-3 hours   | 3-4 hours   | over 4 hours |               |

These questions are about how much sleep you lose to unwanted wakefulness:

On most nights, how long, on average does it take you to fall asleep after you start trying?  
\_\_\_\_\_ minutes

On most nights, how much sleep do you lose, on average, from waking up during the night (e.g. to go to the bathroom)?  
\_\_\_\_\_ minutes

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## Reference

1. Monk, T. H., Buysse, D. J., Kennedy, K. S., Potts, J. M., DeGrazia, J. M., & Miewald, J. M. (2003). Measuring sleep habits without using a diary: the sleep timing questionnaire. *Sleep*, 26(2), 208–212.

## Representative Studies Using Scale

- Klei, L., Reitz, P., Miller, M., Wood, J., Maendel, S., Gross, D., et al. (2005). Heritability of morningness-eveningness and self-report sleep measures in a family-based sample of 521 Hutterites. *Chronobiology International*, 22(6), 1041–1054.